

DOROTHY K. ROBINSON  
*Vice President and General Counsel*  
P.O. Box 208255  
New Haven, Connecticut 06520-8255

*Telephone: 203 432-4949*  
*Fax: 203 432-7960*

September 5, 2006

The Honorable Tom Coburn  
Chairman  
Subcommittee on Federal Financial Management  
United States Senate  
Washington, D.C. 20515

Dear Chairman Coburn:

At the request of President Richard C. Levin, I am writing to respond to your July 27<sup>th</sup> letter concerning appropriations to academic institutions.

Let me say at the outset that Yale has a longstanding policy of not seeking earmarks. We believe that allocating federal research funds on the basis of merit, as judged by scientific peers, is most likely to fund the best projects and, in turn, lead to the greatest return on the public investment in science. Yale's policy states in part,

Yale believes that federal support of research should be allocated on the basis of excellence as determined by merit review. Consequently, the University does not seek funds through earmarking, nor does it permit its faculty to do so. If faculty have identified promising areas of research that are not adequately supported by federal funding agencies, the University is prepared to work with faculty to develop competitive, merit-based programs in such fields of research.

We have sought to ensure full observance of this policy by all faculty and staff at the University. We also have declined offers of direct appropriations from Members of Congress. When faculty or staff have proposed earmarks, we have recommended that they instead seek Congressional support for programs that are open to competition. Yale has never hired a lobbyist to identify or pursue sources of earmarks.

Despite these efforts, individuals at Yale have obtained a small number of earmarked appropriations between 2000 and the present. In some cases, they have done so in the absence of significant external support for their program or project areas. In others, the proposed activities had an especially compelling benefit for the City of New Haven and for Connecticut as well as important implications for education and public

health in particular. They represent a very small fraction of the approximately 2,500 sponsored projects active at Yale.

The projects we have identified as earmarked appropriations are as follows:

Department/Agency	Research Project/Program	Year	Amount
Agriculture	Northeast Area-Wide Tick Control <sup>1,2</sup>	2000	\$197,600
		2001	\$197,600
Agriculture	Cooperative Lyme Disease Research	2000	\$200,000
		2001	\$200,000
Substance Abuse & Mental Health Admin (SAMHSA)	Child Development-Community Policing	2002	\$800,000
		2005	\$469,000
Health Resources & Services Administration	Ovarian Cancer Screening & Treatment	2005	\$392,826
Education	School Development	2001	\$744,000

We have enclosed a review of goals and accomplishments for each of the listed projects, as you requested. Yale sets high standards for the quality of all of its academic programs; these procedures involve regular tenure and promotion reviews of individual faculty, annual reviews of programs for budgeting purposes, as well as more in-depth evaluation of programs involving outside experts. These standards apply to regardless of the source of funds; we do not have a separate process for judging standards for programs funded by earmarks. We believe that the very few programs funded by earmarked appropriations at Yale meet these high standards.

For these reasons, despite their inconsistency with Yale's policy on research funding, we believe the listed programs have contributed to Yale's research and academic programs and to the fields served. You may note from the enclosed review

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<sup>1</sup> Funds for the Northeast Area-Wide Tick Control Project were not directed to Yale, but the University ultimately received the funding. In relevant part, the committee provisions of H. Rpt. 106-157 for 2000 provide "an increase of \$197,600 to continue support for the Northeast Area-Wide Tick Control Project in order to achieve a dramatic reduction of lyme ticks...." In 2001, language was added to coordinate the project at Beltsville, Maryland in collaboration with Yale.

<sup>2</sup> In 2000 and 2001, the Committee provided \$172,000 for an extramural research project on ecologically-based technologies for controlling Ixodes Scapularis and reducing Lyme disease. While the earmark was not directed to Yale, the University ultimately received the funding.

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that they have made significant contributions to the health and welfare of children and families in the communities involved in the projects and beyond.

I hope that this response is helpful in your deliberations on this issue. If you have any questions, please do not hesitate to contact me directly or Richard Jacob, Associate Vice President of Government Relations, at (203) 432-4949.

Sincerely,



Dorothy K. Robinson

Attachments

cc: Richard C. Levin

### Attachment

**Program or Project** – Northeast Area-Wide Tick Control Project (2000, 2001)

**Agency** – Department of Agriculture/ Agricultural Research Service

**Funding** - \$197,600, \$197,600

**Background** – The number of Lyme disease cases reported to the Centers for Disease Control has steadily increased since 1982, with a record 40 percent increase in 2002. Because of the recent withdrawal of the human Lyme disease vaccine from the market, area application of pesticides to reduce the density of vector tick populations in the environment is now the only method currently available to the public with consistently demonstrated efficacy for Lyme disease prevention.

**Objectives** – The appropriated funds were to be used to establish and support the Northeast Area-Wide Tick Control Project, a joint ARS-Yale University field experiment designed to evaluate the USDA –patented device for self-treatment of white-tailed deer with acaricides to prevent reproduction of the deer tick vector of Lyme disease. This study is designed to demonstrate that Lyme disease risk for humans can be significantly reduced through reduction of the vector population without area application of pesticides to the environment. Specifically, the project seeks to establish the USDA patented self-treatment device, known as the 4-poster, in five locations in the Northeastern U.S. where the incidence of Lyme disease is highest. Comparisons will be made between treatment and control sites to determine the level of population reduction and the prevalence of tick-borne pathogens (Lyme disease, anaplasmosis, etc) resulting from the treatment. A meta-analysis of the results from the five experimental sites will be conducted to determine the overall efficacy of the tick control project.

**Outcomes** – The results of this experiment have shown that the 4-poster technology will reduce populations of deer tick by 71 percent within six years with no change in the prevalence of tick-borne pathogens among the remaining ticks. Consequently, the risk of Lyme disease for humans is reduced by a similar magnitude (71 percent). This project has been extremely successful in demonstrating proof of concept that *I. scapularis* populations and, consequently, Lyme disease risk for humans, can be effectively reduced simply by preventing adult ticks from feeding upon white-tailed deer. Efficacy could be further increased with the use of more effective acaricides that have become available since this project began. However, this proof of concept should also encourage the development of alternative methods of host-targeted tick control that do not rely upon pesticides, such as the use of biological control agents against ticks (fungi, parasitoids) and anti-tick vaccines.

The following manuscripts have been prepared for publication and are in process of internal review before being submitted to the *Vector Borne and Zoonotic Diseases*, a peer-reviewed medical journal:

Pound, J.M., J.A. Miller, J.E. George, and D. Fish. Introduction to the USDA Northeast Tick Control Project. 14 pp.

Brei, Brandon, John S. Brownstein, John E. George, J. Mathews Pound, J. Allen Miller, Thomas J. Daniels, Richard C. Falco, Kirby C. Stafford III, Terry L. Schulze, Thomas N. Mather, John F. Carroll, and Durland Fish. Evaluation of the USDA Northeast Area-wide Tick Control Project by Metaanalysis. 20 pp.

Fish, D. and M. Papero. Analysis of *Borrelia burgdorferi* and *Anaplasma phagocytophilum* prevalence in host-seeking *Ixodes scapularis* ticks in treatment and control areas of the USDA Northeast Tick Control Project. 14 pp.

Stafford, Kirby III, Anthony J. DeNicols, J. Mathews Pound, J. Allen Miller, and John E. George. Treatment of White-Tailed Deer with an Acaricide for the Control of *Ixodes scapularis* (Acari: Ixodidae) in a Connecticut Lyme Borreliosis Hyperendemic Community. 36 pp.

Daniels, Thomas, J. Richard C. Falco, Erin E. McHugh, James Vellozzi, Theresa Boccia, Anthony DeNicola, J. Mathews Pound, J. Allen Miller, John E. George, and Durland Fish. Acaricidal Treatment of White-Tailed Deer to Control *Ixodes scapularis* (Acari: Ixodidae) in a New York Lyme Disease-Endemic Community. 31 pp.

Schulze, Terry L. Robert A. Jordan, Robert W. Hung, and Christopher J. Schulze. Effectiveness of the '4-Poster' Passive Topical Treatment Device in the Control of *Ixodes scapularis* and *Amblyomma americanum* (Acari: Ixodidae) in New Jersey. 37 pp.

Nathan J. Miller, William A. Thomas, Thomas N. Mather. Evaluating A Deer-Targeted Acaricide Applicator For Area-Wide Suppression Of Blacklegged Ticks, *Ixodes scapularis* (Acari:Ixodidae) in Rhode Island. 36 pp.

Carroll, J.F., D. E. Hill, P. C. Allen, K. W. Young, M. Kramer, J. M. Pound, J. A. Miller and J. E. George. The Impact of '4-Poster' Deer Self-Treatment Devices at Three Locations in Maryland. 31 pp.

Pound, J.M., J.A. Miller, J.E. George, D. Fish, J.F. Carroll, T.L. Schulze, T.J. Daniels, R.C. Falco, K.C. Stafford III, and T.N. Mather. The USDA Northeast Tick Control Project – Summary and Conclusions. 42. pp.

**Project or Program** - Cooperative Lyme Disease Research (2000, 2001)

**Agency** - U.S. Department of Agriculture, Agricultural Research Service

**Funding** - \$200,000, \$200,000

**Background** - Infectious diseases transmitted by insect and tick vectors in Connecticut and in other Northeastern states have become an increasing concern to public health agencies. Tick-borne diseases, such as Lyme disease, affect thousands of residents each year, more recently, mosquito-borne diseases, such as Eastern Equine encephalitis and West Nile encephalitis, have increased the threat of vector borne diseases. Methods are needed for the identification and detection of new vector-borne infectious agents in the environment to assess the risk to public health as existing surveillance methods are inadequate to target prevention and control efforts. Also, methods are needed for controlling vectors in the environment to prevent human disease.

**Objective** - Appropriated funds were to be used to supplement existing research funds to identify new tick-transmitted microbial agents in field-collected ticks in Connecticut and surrounding areas. These agents will be studied to determine their potential for causing disease in humans and for the development of new diagnostic tests. Funds also will be used to develop new methods for determining the natural reservoir wildlife hosts for tick-borne disease agents in order to understand how they are maintained in nature, how we might predict their geographic distribution, and how to develop strategies to control transmission and prevent human disease. Funds have developed, and will continue to improve upon, the application of advanced technologies, such as remote sensing, geographic information systems, and spatial statistics that have the potential to vastly improve the interpretation of field surveillance data for vector-borne pathogens. Finally, funds will continue our investigations of landscape epidemiology, pathogen interactions, and wildlife vaccination that may lead to novel intervention methods for the prevention and control of vector-borne zoonoses affecting humans and domestic animals.

**Outcomes** - Three major accomplishments are the result of Department of Agriculture funds, including the appropriations in 2000 and 2001. First, a new species of *Borrelia* spirochetes, a new pathogen transmitted by the deer tick, has been identified. Research has indicated that it is present in one percent of the ticks and could complicate the diagnosis of Lyme disease and other tick borne diseases transmitted by this tick, although further studies are needed to determine the public health significance of this new pathogen. Second, this research has led to the first demonstration of the feasibility of vaccinating the rodent reservoir hosts of Lyme disease in the field. Using the human Lyme vaccine developed at Yale, researchers were able to successfully vaccinate rodents in the field, significantly reduce the prevalence of infection in ticks and consequently the risk of infection from a tick bite for humans. Third, researchers were successful in the application of remote sensing to develop predictive models for the distribution of mosquito vectors of West Nile virus in Connecticut. These models will greatly enhance

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the accuracy of West Nile virus surveillance in Connecticut and identify areas of high risk for the public during outbreaks. This new technology also is broadly applicable to mosquito borne disease surveillance and control.

Publications from this project acknowledging Department of Agriculture support, as well as other accomplishments, are as follows:

Levin, M.L. and D. Fish. 2000. Immunity reduces reservoir-host competence of *Peromyscus leucopus* for *Ehrlichia phagocytophila*. *Infection and Immunity*. 68: 1514-1518.  
Daniels, T.J., R.C. Falco, D. Fish. 2000. Estimating population size and drag sampling efficiency for the blacklegged tick (Acari: Ixodidae). *Journal of Medical Entomology*. 37: 357-363.

Levin, M.L. and D. Fish. 2000. Acquisition of co-infection and simultaneous transmission of the agents of Lyme disease and human granulocytic ehrlichiosis by *Ixodes scapularis* ticks. *Infection and Immunity*. 68: 2183-2186.

Daniels, T.J., R.C. Falco, D. Fish. 2000. Estimating population size and drag sampling efficiency for the blacklegged tick (Acari: Ixodidae). *Journal of Medical Entomology*. 37: 357-363.

Des Vignes, F., J. Piesman, R. Heffernan, T.L. Schulze, K.C. Stafford, and D. Fish. 2001. Effect of tick removal upon transmission of *Borrelia burgdorferi* and *Ehrlichia phagocytophila* by *Ixodes scapularis* nymphs. *Journal of Infectious Diseases*. 183: 773-8.

Scoles, G.A., M. Papero, L. Beati, and D. Fish. 2001. A Relapsing fever group spirochete transmitted by *Ixodes scapularis* ticks. *Vector Borne and Zoonotic Diseases*. 1: 21-34.

Tsao, J.L., A.G. Barbour, C.J. Luke, E. Fikrig, and D. Fish. 2001. OspA immunization decreases transmission of *Borrelia burgdorferi* from infected *Peromyscus leucopus* to larval *Ixodes scapularis* ticks. *Vector Borne and Zoonotic Diseases*. 1: 65-74.

Levin, M. and D. Fish. 2001. Interference between the agents of Lyme disease and human granulocytic ehrlichiosis in a natural reservoir host. *Vector Borne and Zoonotic Diseases*. 1: 139-148.

Levin, M.L., W.L. Nicholson, R.F. Massung, J.W. Summer, and D. Fish. 2002. Comparison of the reservoir competence of medium-sized mammals and *Peromyscus leucopus* for *Anaplasma phagocytophilum* in Connecticut. *Vector Borne and Zoonotic Diseases*. 2: 125-136.

Brownstein, J.S., H. Rosen, D. Purdy, J.R. Miller, M. Merlino, F. Mostashari, and D. Fish. 2002. Spatial analysis of West Nile virus: Rapid risk assessment of an introduced vectorborne zoonosis. *Vector Borne and Zoonotic Diseases*. 2: 157-164.

- Derdakova, M., L. Beati, B. Peřko, M. Stanko, and D. Fish. 2003. Genetic variability within *Borrelia burgdorferi* sensu lato genospecies established by PCR-single-strand conformation polymorphism analysis of the *rrfA-rrlB* intergenic spacer in *Ixodes ricinus* ticks from the Czech Republic. *Applied and Environmental Microbiology*. 69: 509-516.
- Brownstein, J.S., Holford, T.R., Fish, D., 2003. A climate-based model predicts the spatial distribution of the Lyme disease vector *Ixodes scapularis* in the United States. *Environmental Health Perspectives* 111: 1152-1157.
- Wang, G., D. Liveris, B. Brei, H. Wu, R.C. Falco, D. Fish, and I Schwartz. 2003. Realtime PCR for simultaneous detection and quantification of *Borrelia burgdorferi* in field collected *Ixodes scapularis* from Northeastern United States. *Applied and Environmental Microbiology*. 69: 4561-45653.
- Madhav, N. K., Brownstein, J. S., Tsao, J. I., Fish, D. 2004. A dispersal model for the range expansion of the blacklegged tick, *Ixodes scapularis* (Acari: Ixodidae). *Journal of Medical Entomology*. 41: 842-852.
- Derdáková, M., V. Dudiňák, B. Brei, J. Brownstein, I. Schwartz, and D. Fish 2004. The interaction and transmission of two different *Borrelia burgdorferi* sensu stricto strains in a tick-rodent maintenance system. *Applied and Environmental Microbiology*. 70: 6783-6788.
- Brownstein, J.S., Holford, T.R., Fish, D., 2004. Enhancing West Nile virus surveillance: United States. *Emerging Infectious Diseases*. 10: 1129-1133.
- Bunikis, J., J. Tsao, U. Garpmo, J. Berglund, D. Fish, and A.G. Barbour. 2004. Sequence typing reveals extensive strain diversity of the Lyme borreliosis agents *Borrelia burgdorferi* in North America and *Borrelia afzelii* in Europe. *Mircobiology*. 150: 1741-1755.
- Bunikis J., J. T. Tsao, U. Garpmo, J. Berglund, D. Fish. 2004. Barbour AG. Typing of *Borrelia* relapsing fever group strains. *Emerging Infectious Diseases*. 10: 1661-4.
- Tsao, J.I. J.T. Wootton, J. Bunikis, M.G. Luna, D. Fish, and A.G. Barbour. 2004. An ecological approach to preventing human infection: Vaccinating wild mouse reservoirs intervenes in the Lyme disease cycle. *Proceedings of the National Academy of Science* 101: 18159-18164.
- Brownstein, J.S., Holford, T.R., Fish, D. 2005. Impact of climate change on Lyme disease risk. *EcoHealth*. 2: 38-46.
- Brownstein, J.S., Skelly, D.K., Holford, T.R., Fish, D. 2005. Forest fragmentation redicts local scale heterogeneity of Lyme disease risk. *Oecologia*. 146: 469-479.



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Hanincová, K., K.Kurtenbach, M.A. Diuk-Wasser, B. Brei and D. Fish. 2006. Epidemic spread of Lyme borreliosis, northeastern United States. *Emerging Infectious Diseases*. 12:604-611.

Bockenstedt, L.K., N.Y. Liu, I. Schwartz, and D. Fish. 2006. MyD88 deficiency enhances acquisition and transmission of *Borrelia burgdorferi* by *Ixodes scapularis* ticks. *Infection and Immunity* 74 (4): 2154-2160.

Kurtenbach, K., K. Hanincova, J.I. Tsao, G. Margos, D. Fish, and N. Ogden. Fundamental processes in the evolutionary ecology of vector-borne zoonoses with emphasis on Lyme borreliosis. *Nature Reviews Microbiology*. 4: 660-669.

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**Program or Project - Ovarian Cancer Prevention, Early Detection and Treatment (2005)**

**Agency - Department of Health and Human Services/Health Resources and Services Administration**

**Funding - \$392,826**

**Background -** Ovarian cancer is the gynecologic cancer that is most likely to lead to death among women in the United States. Overall, it is the seventh most common cancer and the fifth leading cause of cancer death after lung, breast, colorectal, and pancreatic cancers in American women. According to the American Cancer Society, in the United States, more than 20,000 new cases of ovarian cancer will be diagnosed, and 15,000 women will die of the disease in 2006.

Despite progress in many areas of medicine, the annual death rate for ovarian cancer has remained nearly the same since 1973. The reason for the high mortality is that almost 80 percent of women with ovarian cancer find that the disease has spread beyond the ovary at the time of diagnosis, with a five year survival rate of less than 30 percent. In contrast, the small proportion of women diagnosed with early (stage I or II) disease will have a five year survival rate of 60 to 90 percent. Therefore, earlier diagnosis can lead to improved survival and a measurable reduction in the Nation's cancer burden for women. Unfortunately, there is not a simple, reliable test to detect ovarian cancer in time, such as the tests available for breast, cervical, and colorectal cancers.

The Comprehensive Section of Gynecologic Oncology, a practice of Obstetrics and Gynecology of the Yale School of Medicine, brings together a team of clinicians whose focus is caring for women with gynecologic cancer. Faculty members are board certified in obstetrics and gynecology and in the subspecialty of gynecologic oncology, which unites surgery, chemotherapy and radiation therapy into the oncologic management of patients. The Section is a key component of the Yale Cancer Center, which is the only National Cancer Institute-designated center in Southern New England. Section members play a vital role in bringing new modalities in diagnosing and treating gynecologic malignancies into clinical practice. For more information about Gynecologic Oncology at Yale, please visit the website at <http://www.yaleobgyn.org/oncology/>.

**Objective -** Appropriated funds were to be used to reduce illness and death due to ovarian cancer. Generally, the funds were to support a program offered by Yale Gynecologic Oncology to provide needed health service to the women of New Haven and throughout Connecticut by expanding access to leading ovarian cancer specialists to women concerned about their risk of ovarian cancer and helping achieve the ovarian cancer early detection goals of the Centers for Disease Control-sponsored comprehensive cancer control plan. In addition, and consistent with Yale's position as an academic medical center, funds were to help evaluate the new ovarian cancer tests being developed at Yale alongside the tests that are current practice.

Currently, Yale Gynecologic Oncology sees approximately 70 percent of the ovarian cancer cases in Connecticut. Through the appropriated funds, researchers hoped to increase the incidence of early state (I or II) ovarian cancer at the time of diagnosis compared with incidence in women screened prior to the implementation of the program. The appropriated funds were to help support efforts to educate and provide women with the latest information about the risk, warning signs, protective measures and possible treatments for ovarian cancer. In addition, the appropriated funds were to be used to support a clinic, where women with the greatest risk for developing ovarian cancer – those with first degree relatives – would be screened, evaluated and counseled without concern for their ability to pay. More specifically, the appropriated funds were to be used to purchase equipment to aid in the examination and detection of ovarian cancer and to process and evaluate clinical tests. The nature of the equipment also would allow researchers and scientists to develop and test new detection technologies developed at the ovarian cancer early detection laboratory at Yale.

**Outcomes** – The appropriated funds, due to the HRSA account, are limited to the purchase of equipment. Specifically, the equipment purchased with these funds has been used to help build the Ovarian Cancer Prevention and Early Detection Program – the only program in Connecticut for the early detection of ovarian cancer. The appropriated funds were matched with other resources and the program is in the final stages of hiring a nurse practitioner for the program. The program served about 120 women in the past year. The new nurse practitioner – and the new equipment – will significantly increase the number of women served.

The equipment is aiding in the development and use of Yale's Early Detection Assay for ovarian cancer. Statistical analyses of the technology from a preliminary study of 206 women -- 24 patients with early stage (I/II) epithelial ovarian cancer and 76 with later stage (III/IV) epithelial ovarian cancer -- showed a higher sensitivity and specificity than current commercially available tests, and a positive predictive value. Yale expects to conduct additional clinical studies on the test technology prior to its commercial introduction. In addition, equipment purchased with these funds has been used to develop a new test to determine chemo-resistance to ovarian cancer. The test involves laser capture microdissection and luminex technology. Equipment purchased with these funds also has been used for the characterization of inflammatory components used for immune regulation. New therapeutic approaches are presently in development based on these studies. Finally, the purchased equipment will also allow the program to add bone health screening, a key women's health issue, to the clinic.

Publications from this project acknowledging Department of Health and Human Services support, as well as other accomplishments, are as follows:

Mor G., Visintin I, Lai Y, Zhao H, Schwartz P, Rutherford P, Yue L, Bray-Ward P, and Ward D C. (2005) Serum Protein Markers For Early Detection Of Ovarian Cancer. Proceedings of the National Academy of Sciences: 102(21):7677-82

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Kelly, M. Alvero, AB. Chen, R Abrahams, V M. Chan, S Visintin, I. Rutherford T and Mor G (2006) TLR-4 Signaling Promotes Tumor Growth And Paclitaxel Chemo-Resistance In Ovarian Cancer. *Cancer Research*. 66:3859-68

Alvero, AB, Chen C, Sartorelli AC, Schwartz P, Rutherford T and Mor G. (2006) Triapine (3-aminopyridine-2-carboxaldehyde thiosemicarbazone) induces apoptosis in ovarian cancer cells. *Journal of the Society for Gynecologic Investigation*. 13(2):145-52.

Agarwal R, Alvero A., Visintin I, Lai Y, Schwartz P., Rutherford, T., Ward D. and Mor G. (2006) Macrophage Migration Inhibitory Factor expression in ovarian cancer. *Gynecologic Oncology*. Submitted

Dan-Arin Silasi, Ayesha Alvero, Michael Kelly, Rui Chen, Fu Hsuan, Peter Schwartz, Thomas Rutherford and Gil Mor (2006) A Novel Approach To Determine Paclitaxel Resistance In Ovarian Cancer. In preparation.

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**Program or Project - National Center for Children Exposed to Violence (NCCEV), Child Development-Community Policing Program (2002)**

**Agency - Department of Health and Human Services/Substance Abuse and Mental Health Services Administration**

**Funding - \$800,000**

**Background -** The National Center for Children Exposed to Violence (NCCEV) was created to increase the capacity of individuals and communities to reduce the incidence and impact of violence on children and families; to train and support the professionals who provide intervention and treatment to children and families affected by violence; and, to increase professional and public awareness of the effects of violence on children, families, communities and society. As part of the NCCEV, the Child Development-Community Policing (CD-CP) Program, developed by Yale University's Child Study Center and the New Haven Police Department, brings police officers, mental health professionals and other community agencies together through training, consultation and support to provide constructive intervention for children exposed to violence.

**Objective -** The appropriated funds were to be used to provide coordinated police and mental health consultation and intervention to families in which a child was a victim of or a witness to an act of violence or crime. Funds also were to be used to train and place clinicians and specially trained police supervisors on-call 24 hours a day to provide consultation to officers in the field or to direct crisis intervention for children and families, providing immediate help for children who otherwise might not receive services. In addition, funds were to be used to improve mental health and other community services access among children and families who were affected by violence.

**Outcomes -** During this award, more than 900 cases were referred by New Haven police officers, involving more than 1,100 children. Approximately one-quarter received an acute, [in-person] consultation and more than a third received telephone contact within 24 hours. In addition, for 20 percent of the children referred, officers and clinicians provided acute case management, including consultation on child disposition (e.g. hospitalization and negotiation of referrals to other agencies. The length of service provision ranges from a single acute consultation to intensive psychotherapy involving multiple sessions per week. In the course of the award, program clinicians provided more than 2,300 hours of psychotherapy services as well as a large number of indirect service hours devoted to case coordination and consultation with other professionals.

Also, various training programs were offered to support the work of the program, including staff training for Investigative Services, Family Services, Communications and Patrol in the New Haven Police Department, training for recruits at the New Haven Police Academy, and administrators, teachers and social workers from the New Haven Public Schools.

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Finally, the award finalized and disseminated data collection instruments and a program evaluation protocol to follow the clinical path of the Child Development-Community Policing intervention. Data from these forms will provide a critical overview of domains relevant to the police-mental health collaboration and will be used for clinical and program evaluation and service development.

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**Program or Project** - National Center for Children Exposed to Violence, Child Development-Community Policing Program (2005)

**Agency** - Department of Health and Human Services/Substance Abuse and Mental Health Services Administration

**Funding** - \$496,000

**Objective** - The appropriated funds were to be used to maintain, support and further develop the existing New Haven Child Development-Community Policing Program, develop and disseminate the acute response protocol of the New Haven Child Development-Community Policing Program to a network of sites around the country, refine the Domestic Violence Home Visit Intervention Program for replication, and help develop and support other CD-CP sites, expand the program to other states.

**Outcomes** - In the last six months, appropriated funds have achieved the following outcomes:

- Maintained the Child Development-Community Policing Program 24/7 consultation service; continued to engage in weekly case conferences with local collaborators; continued to provide cross-training to professionals, with a training scheduled for September 2006; and continued to provide trauma-focused treatment to children and families referred to the program. (So far, appropriated funds helped provide acute and follow-up services to approximately 315 children and their families.)
- Continued development and refinement of the Child-Development-Community Policing Program acute response protocol.
- Refined the Domestic Violence Home Visit Intervention Program, currently in practice in New Haven, CT, and planned replication training in the model for other sites in September 2006, including Wilmington, DE and Providence, RI. Provided replication training in the Child Development-Community Policing Program model to professionals from Wilmington, DE with additional site to include the University of Maine, University of Toronto and Miami Dade County, FL.
- Engaged representatives from the Southeast Regional Training Center in Charlotte, NC, in requests for training, presentations, materials and development.
- Delivered presentations at more than 35 conferences to a total audience of 2,383 individuals.
- Maintained in-depth ongoing contact with existing Child Development-Community Policing sites throughout the country and continued to receive inquiries from communities throughout the country regarding replication training.

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**Program or Project** – School Development Program at the Child Study Center

**Agency** – Department of Education

**Funding** - \$744,000

**Background** – Research at the Child Study Center at Yale spans many levels of analysis. For example, programs of research include molecular biology of brain maturation and studies of the function of the brain and the emergence of complex behavioral processes and clinical syndromes, problems within families, and the roles of schools and neighborhoods in the lives of children. The faculty of the Center is committed to the concept that clinical work enriches and is enriched by research and that clinical investigation is sensitive to the complexity of children's experiences and the multiple determinants of functioning.

The School Development Program (SDP) at the Child Study Center is the forerunner of all modern school reform efforts in the United States, and is unique in its promotion of child development knowledge in district and school settings. The program seeks to provide a strong base of evidence for its reform efforts by testing hypotheses underlying the program in the schools, advancing knowledge about the critical importance of child and adolescent development and learning to improve educational practice and to inform policy decision making, developing new ways to study development and learning and to apply these new methods to educational practice, and developing a national database on child development and learning to foster collaborations and to advance new knowledge and theories. Currently, the program, sometimes known as the Comer Process, operates in more than 400 schools in 21 states. Parenthetically, SDP was one of only three school reform programs in the U.S. rated with the highest evidence of effectiveness.<sup>3</sup>

**Objective** – Appropriated funds were to be used to strengthen and support several fundamental strategies of SDP's national Education Extension Service (EES), a multi-tiered [information-sharing] and education initiative. Specifically, funds will be used for EES to expand opportunities for teachers and administrators, through national publications and distance learning opportunities that make use of years of case history and evaluation information, to receive information on child-centered SDP educational reform practices and to create and develop collaborative problem solving and strategic plans that advance the Nation's educational agenda on topics ranging from teacher preparation and professional development and improved means of measuring the comprehensive growth and development of students.

**Outcomes** – At its core, the appropriated funds were used as a force multiplier that

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<sup>3</sup> Borman, G.D., Hewes, G.M., Overman, L.T., & Brown, S. (2003), Comprehensive school reform and student achievement: A meta-analysis. *Review of Educational Research*, 73(2), 125-230.



## Attachment

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allowed the Child Study Center to improve and expand the reach of SDP. In an effort to disseminate information to the field, appropriated funds were used to develop field manuals and best practices publications to assist schools and school districts in improving student achievement and personal development. One of these publications, the **Field Guide to Comer Schools in Action**<sup>4</sup>, is the collective representation of what SDP has learned from its years of working in school communities. Among other things, it includes materials developed and field tested as well as the fundamentals of the Comer Process for school reform. Each section has a dominant theme describing the structures and processes needed to improve curriculum and instruction, child and adolescent development, and governance and management at the micro and macro levels of a school district. The Field Guide is issued to all participants attending SDP leadership academies and it will serve as the basis for refresher training in schools and districts that are already implementing the Comer Process. In addition, many college professors in the SDP university network have indicated that they will use the Field Guide in their classes, which means that it will also influence pre-service educators.

Another major activity supported by the appropriate funds was the implementation of distance learning technology for communication and exchange among the SDP network. SDP has upgraded its website (<http://www.schooldevelopmentprogram.org/>), enabling various interactive distance learning capabilities. The website now supports online text conversations and file sharing, two key components of the distance learning initiative. Also, video and audio media that overview the fundamentals of the SDP process has been added to the website, allowing greater access for all school districts – even the most rural.

Finally, the appropriated funds were used, partially, to support conferences and retreats with educators, social services organizations, policymakers and universities to further improve the program and the education and development of children and adolescents. Since 2001, SDP has brought together leaders in school reform at least seven times and these meetings have been used to forge new partnerships and strengthen existing university and regional affiliations.

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<sup>4</sup> **The Field Guide to Comer Schools in Action**, edited by James P. Comer, Edward T. Joyner and Michael Ben-Avie (2004). Thousand Oaks, CA: Corwin Press. This is a set of three volumes in a slipcase, which include *Six Pathways to Healthy Child Development and Academic Success*, *Transforming School Leadership and Management to Support Student Learning and Development*, and *Dynamic Instructional Leadership to Support Student Learning and Development*.